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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/954,507	09/12/2001	Richard A. Howes	CISCP041C1	9058

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BAKER BOTTS L.L.P.
2001 ROSS AVENUE
SUITE 600
DALLAS, TX 75201-2980

EXAMINER

MEHRA, INDER P

ART UNIT PAPER NUMBER

2666

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/954,507

Applicant(s)

HOWES ET AL.

Examiner

Inder P Mehra

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/20/02, 10/9/01.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This is in response to application dated 9/12/01.

Specification

2. The disclosure is objected to because of the following informalities:
 - a. Refer to page 1 lines 6-16. Provide dates of applications mentioned at lines 6, 7, 9, 12, 14). Further, provide Patent Nos. and dates corresponding to these applications.
 - b. Refer to page 1 lines 17-19. Patent numbers and dates in place of blank spaces should be provided.
 - c. Refer to page 2 lines 15-17. Provide dates of applications mentioned at lines 15-17, in place of Docket number. Further, provide Patent Nos. and dates corresponding to these applications.
 - d. Refer to page 4 lines 9. Provide date of application mentioned at line 9, in place of Docket number. Further, provide Patent No. and date corresponding to this application.
 - e. Refer to page 11, line 5. "SYN" packet has been used first time here in specification. There is no explanation as to its meaning. What is the source of this packet, and what "SYN" stand for? In what way is it different from "Replication packet", as claimed limitation in claim 1?
 - f. Refer to page 14 line 20. What is "unclassified user"? Please explain.

- g. Refer to page 15 line 2. It is not clear as to what you mean by “virtual machines implemented on local director”. Appropriate clarification is required.
- h. Refer to page 17 lines 7 and 10. What are “foreign source IP addresses”; “real IP address” at page 18 line 3?. Fig. 3B shows “Physical IP address”. Specification does not give examples of physical, virtual machines. These terms are too much general in nature. Provide specific information to facilitate search of prior art. Appropriate clarification is required.
- i. Refer to page 17 line 19, and page 18 lines 1 and 3. Change ‘316’ to ‘318’ as reflected in fig. 3B.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 1-17 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Claim 1 recites the limitation "the state of virtual connection" in line 1. There is insufficient antecedent basis for this limitation in the claim.
- b. Claim 2 recites the limitation "the destination address" in line 3. There is insufficient antecedent basis for this limitation in the claim.

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- c. Claim 6 recites the limitation "the first virtual connection" in line 5. There is insufficient antecedent basis for this limitation in the claim. Further, claim 6 recites "includes a includes", in line 2. It does not make any sense. Appropriate correction is required.
- d. Claim 9 recites the limitation "the current time" in line 3. There is insufficient antecedent basis for this limitation in the claim.
- e. Claim 11 recites the limitation "the number of connections" in line 3. There is insufficient antecedent basis for this limitation in the claim.
- f. Claims 14-17 recites the limitation "the replication object" in line 2. There is insufficient antecedent basis for this limitation in the claim.
- g. Claims 17 recites the limitation "the replication object" in line 2. There is insufficient antecedent basis for this limitation in the claim.
- h. Claims 14-17 recites the limitation "the replication object" in line 2. There is insufficient antecedent basis for this limitation in the claim.
- i. Claims 14-17 recites the limitation "the replication object" in line 2. There is insufficient antecedent basis for this limitation in the claim.
- j. Claims 2-17 recites the limitation "A method" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Appropriate correction/clarification is required.

Information Disclosure Statement

5. The information disclosure statement filed **10/9/01** fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 ***because this is duplicate copy of IDS dated 2/2/02***. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1-18 of U.S. Patent No. 6,366,558. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following:

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8. For claims 1-18, the claims 1-6 of patent number 6,366,558 disclose A fault tolerant connection manager system (maintain connection) comprising:

an active connection manager that implements a virtual machine on a physical machine by translating destination IP addresses of incoming packets that have a packet source address that matches a designated foreign IP address and a packet destination address that matches a designated virtual IP address into a designated physical IP address, see claims 1 and 4, (changing the standby connection manager to an active state and translating the destination IP address ----- physical IP address, **as recited in claims 1, 2 and 18**);

a standby configuration connection that transfers configuration information about the virtual machine and the physical machine from the active connection manager to a standby connection manager (replication packet at a standby connection manager----from active connection manager, **as recited by claims 1, 5 and 18**); and

the standby connection manager configured to implement the virtual machine on the physical machine, the standby connection manager including a standby connection object that includes the designated foreign IP address, the designated virtual IP address and the designated physical IP address from the replication packet on the standby connection manager (see claim 1), (receiving replication packet---includes foreign IP address, virtual IP address and physical IP address), **as recited by claims 1 and 18**.

a fault tolerant connection manager system including: wherein the active connection manager is configured to send the standby connection manager a replication packet and the replication packet includes the designated foreign IP address, the designated virtual IP address

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and the designated physical IP address (see claim 2),(receiving configuration information – standby connection manager---), **as recited by claims 12 and 13.**

means for an active connection manager that implements a virtual machine on a physical machine by translating destination IP addresses of incoming packets that have a packet source address that matches a designated foreign IP address and a packet destination address that matches a designated virtual IP address into a designated physical IP address, see claim 3);

means for a standby configuration connection that transfers configuration information about the virtual machine and the physical machine from the active connection manager to the standby connection manager; see claim 3, (receiving configuration information ---, **as recited by claims 12-13).**

For claims 1-18, the claim 14 of Howes' patent number 6,445,704 discloses "A method of virtualizing a locally initiated outbound connection from a physical machine as recited in claim 1 wherein the outbound connection from the physical machine is counted along with inbound connections made to the physical machine for the purpose of **load balancing** new incoming connections", (wherein the physical machine wherein new connections are distributed to the physical machine using a load balancing scheme that depends on the number of connections made to the physical machine, **as recited by claim 11).**

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Howes et al** (U.S. Patent No. 6,366,558), hereinafter, **Howes** in view of **Lin et al** (US patent No. 5,713,017), hereinafter, **Lin**.

For claim 3, Howe discloses all limitations of subject matter, with the exception of the following limitations, which are disclosed by Lin, as follows:

- “updating a physical machine counter in the physical machine object when a replication packet is received that includes the physical IP address”, (refer to replicated servers (physical machines) with IP address, col. 4 line 66 through col. 5 line 1, and update of counters col. 7 lines 1-5.

It would have been obvious to a person of ordinary skill to combine the capability of “updating physical machine counter when a replication packet is received including IP address, as taught by Lin. This capability can be combined in the physical machine of Howes. The suggestion to do so is motivated in order to keep track of the largest sequence number of requests which have been completed on the server (physical machine).

11. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Howes et al** (U.S. Patent No. 6,366,558), hereinafter, **Howes** in view of **Oliver et al** (US patent No. 5,491,694), hereinafter, **Oliver**.

For claims 14 and 15, Howe discloses all limitations of subject matter, with the exception of the following limitations, which are disclosed by Oliver, as follows:

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- “wherein the replication object also includes a virtual machine port number, as **recited by claim 14**, refer to fig. 1, col. 7 line 65 – col. 8 line 25 and col. 17 line 40-col. 18 line 17 .
- wherein the replication object also includes a physical machine port number, as **recited by claim 14**, refer to col. 17 line 40-col. 18 line 17, fig. 9, and col. 26 lines 25-30.

It would have been obvious to a person of ordinary skill to combine the capability Of “the replication object also includes a virtual machine port number and a physical machine port number. This capability can be combined in the physical machine of Howes. The suggestion to do so is motivated in order to keep track of the largest sequence number of requests which have been completed on the server (physical machine).

12. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Howes et al** (U.S. Patent No. 6,366,558), hereinafter, Howes in view of **Monteiro et al** (US patent No. 6,434,622), hereinafter, Montairo.

For claim16, Howe discloses all limitations of subject matter, with the exception of the following limitations, which are disclosed by Montairo, as follows:

- “wherein the replication object also includes a foreign port number”, as **recited by claim 16**, refer to col. 1 lines 44-50, and col. 8 line 45-col. 9 line 35.

It would have been obvious to a person of ordinary skill to combine the capability Of “the replication object also includes a foreign port number”, This capability can be combined in the physical machine of Howes. The suggestion to do so is motivated in order to

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keep track of the largest sequence number of requests which have been completed on the server (physical machine).

13. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Howes et al** (U.S. Patent No. 6,366,558), hereinafter, Howes in view of **Beeler Jr. et al** (US patent No.5,819,020), hereinafter, Beeler.

For claim17, Howe discloses all limitations of subject matter, with the exception of the following limitations, which are disclosed by Beeler Jr., as follows:

* “checking the size of the replication packet, **as recited by claim 17**, refer to col. 15 lines 50-57.

It would have been obvious to a person of ordinary skill to combine the capability Of “checking the size of the replication packet”, This capability can be combined in the physical machine of Howes. The suggestion to do so is motivated in order to keep track of the largest sequence number of requests which have been completed on the server (physical machine).

Allowable Subject Matter

14. Claims 4, 6-10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Prior Art of Record

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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- Townsend et al (US Patent No. 5,661,719) discloses a network management system including at least two network management stations.
- Burnett et al (US Patent No. 6,006,018) discloses a translation gateway for a distributed computing environment including a source computer system and a target computer system.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Inder P Mehra whose telephone number is 571-272-3170. The examiner can normally be reached on Monday through Friday from 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Inder Pal Mehra

Inder P Mehra
Examiner
Art Unit 2666

DM

DANG TON
PRIMARY EXAMINER